What is claimed is:

1.   A method for use in delivering network messages, the method comprising:

5   (a) receiving at a router on a first sub-network a network layer address for a first node on the first sub-network, the first sub-network being a topologically foreign sub-network with respect to the network layer address of the first node;

(b) attempting to notify a home agent on the first node's

10   topological home sub-network of the network layer address of the first node;

(c) receiving at the router a message having a network layer destination address of the first node, the message being received from a second node on the first sub-network;

15   (d) sending the message toward the first node without sending the message to a different sub-network;

whereby (a) - (d) proceed without requiring receipt of information from the home agent.

20   2.   The method of claim 1, wherein the network layer address of the first node comprises an Internet Protocol address.

3.   The method of claim 1, wherein the router comprises a

25   foreign agent configured to de-tunnel messages received from the home agent.

4.   The method of claim 1, further comprising:
identifying a link layer address of the first node, and

30   wherein sending the message from the router toward the first node comprises sending the message via the link layer address.

5.   The method of claim 1, further comprising:

modifying a routing table to include an entry for the network layer address of the first node.

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6.   The method of claim 1, wherein the first node comprises a wireless node.

7.   The method of claim 1, further comprising:

10   advertising the availability of the router to the first node.

8.   The method of claim 1, wherein attempting to notify comprises determining whether a message can reach the home

15   agent.

9.   The method of claim 1, wherein attempting to notify comprises a failed attempt.

20   10.   A computer program product, disposed on a computer readable medium, for use in delivering network messages, computer program including instructions for causing a processor to:

(a) receive at a router on a first sub-network a network

25   layer address for a first node on the first sub-network, the first sub-network being a topologically foreign sub-network with respect to the network layer address of the first node;

(b) attempt to notify a home agent on the first node's topological home sub-network of the network layer address of the

30   first node;

(c) receive at the router a message having a network layer destination address of the first node, the message being received from a second node on the first sub-network;

(d) send the message toward the first node without sending

5   the message to a different sub-network;

whereby (a) - (d) proceed without requiring receipt of information from the home agent.

11.   The computer program of claim 10, wherein the network

10   layer address of the first node comprises an Internet Protocol address.

12.   The computer program of claim 10, wherein the router comprises a foreign agent configured to detunnel messages

15   received from the home agent.

13.   The computer program of claim 10, further comprising instructions for causing the processor to:

identify a link layer address of the first node, and

wherein the instructions for causing the processor to send

20   the message from the router toward the first node comprise instructions for causing the processor to send the message via the link layer address.

25   14.   The computer program of claim 10, further comprising instructions for causing the processor to modify a routing table to include an entry for the network layer address of the first node.

30   15.   The computer program of claim 10, wherein the first node comprises a wireless node.

16.   The computer program of claim 10, further comprising instructions for causing the processor to advertise the availability of the router to the first node.

5   17.   The computer program of claim 10, wherein the instructions for causing the processor to attempt to notify comprise instructions for causing the processor to determine whether a message can reach the home agent.

10   18.   A method for use in delivering network messages between mobile nodes on a first sub-network, the first sub-network being topologically foreign to each of the mobile nodes, the method comprising:

        (a) advertising the availability of a foreign agent on the first sub-network;

        (b) establishing local bindings between the foreign agent and the mobile nodes, the local bindings associating a network layer address of the mobile nodes with a link layer address of the mobile nodes;

        (c) attempting to notify the mobile nodes' respective home agents of the mobile nodes attachment to the first sub-network;

        (d) receiving at the foreign agent a message from one of the mobile nodes having a network layer destination address of one of the other mobile nodes; and

25   (e) sending the message to the mobile node having the network layer destination address without sending a message to one of the respective home agents;

        whereby (a) - (e) proceed without requiring receipt of information from the respective home agents.